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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action

Applicant's arguments filed May 12, 2008 have been fully considered but are not persuasive. Applicant's proposed amendments have not been entered because they would raise new issues that would require further search and/or consideration. Furthermore, the amendments are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal. A composition comprising a polycarbonate with an average molecular weight of 10,000-64,000g/mol has not previously been considered.

Regarding the claim rejections

The examiner comments in the 3/17/08 Final Office Action regarding Rosenau were clarified in the May 12, 2008 interview. Specifically, Yutaka is relied upon in the majority of the rejections (sections 2, 3, 7, 8, 9, and 10 of the Final Office Action) to render obvious the addition of polycarbonate. In sections 4, 5, 6, and 11, Rosenau was relied upon to read on the claimed polycarbonate component. The examiner agrees that Rosenau "fails to teach a ***ground or granulated*** component consisting of polycarbonate." However, as explained in the last paragraphs of sections 4, 5, and 6 of the Final Office Action, the "ground or granulated" limitation is understood to be a method limitation that does not result in a materially different product. With respect to the statement that "Yutaka was relied upon in each pending rejection to teach the claimed polycarbonate," the statement would have been more clearly stated as "Yutaka was relied upon in each pending rejection ***in which it was cited*** to teach the claimed polycarbonate." Since it is clear from the rejections how the prior art met the claimed

"polycarbonate" component of claims 24, 41, and 43, further clarification is not deemed necessary. Applicant is reminded that the rejections, not the examiner's response to applicant's arguments, are the basis for how the references read on the claims. It is clear from the rejections how the prior art was relied upon to meet the claimed "polycarbonate" component.

The Rejection of Claims 24, 31, and 41 under 35 USC 103(a) at paragraph 2, page 2 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues the examiner has failed to establish a prima facie case with regards to the "ground or granulated" limitations. The examiner respectfully disagrees. As explained in each of paragraphs 2-7 of the Final Office Action, said limitation is understood to be a method limitation. Specifically, the specification teaches that the polycarbonate is added in "granulated or ground" form (page 18-page 19) and then mixed with the other components at 180-400°C (page 21, lines 26+). At those processing temperatures, the polycarbonate will melt and will not maintain its granulated or ground form (polycarbonate is herein understood to typically melt at 374-500°F). Thus, the method in which the polycarbonate is supplied to the composition is herein

understood not to materially affect the final product. No showing has been made that the form in which the polycarbonate is supplied affects the final product.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

The Rejection of Claims 24, 31, and 41 under 35 USC 103(a) at paragraph 3, page 4 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

The Rejection of Claims 24, 31, and 41 under 35 USC 103(a) at paragraph 4, page 7 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

The Rejection of Claims 24, 31, and 41 under 35 USC 103(a) at paragraph 5, page 8 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

Applicant further argues that the examiner fails to establish a prima facie case of obviousness because Trabert does not disclose that the layer of polymethyl methacrylate which is co-extruded with an underlying structure shall be transparent. The examiner respectfully disagrees. Trabert teaches a "capstock" which is known in the art to be transparent. The examiner's position is further supported by Trabert's teachings that the capstock layer should have excellent optical properties (col 1, line 43), the underlying substrate must have "aesthetic properties" (col 2, line 51), and the disclosed optical properties in table 2.

The Rejection of Claims 24, 31, and 41 under 35 USC 103(a) at paragraph 6, page 10 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

Applicant further argues Endoh fails to provide any reason for a skilled artisan to require a transparent PMMA layer to be present on top of a laminate sheet of film. It is believed applicant is attempting to emphasize Endoh's teaching that a PVDF layer is present on top of the taught PMMA layer. However, a laminate comprising the additional PVDF layer reads on the claimed invention because the PMMA "top layer" is not required to be the outermost layer of the laminate. Rather, "top" is a relative term

that gives the PMMA layer's position relative to the substrate layer, not relative to all other layers that "comprise" the laminated sheet. The examiner's reading is supported by page 27 of the specification which teaches additional layers may be present on the "outside of the top layer."

The Rejection of Claims 24, 31, and 41 under 35 USC 103(a) at paragraph 7, page 11 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues Endoh fails to provide any reason for a skilled artisan to require a transparent PMMA layer to be present on top of a laminate sheet of film. It is believed applicant is attempting to emphasize Endoh's teaching that a PVDF layer is present on top of the taught PMMA layer. However, a laminate comprising the additional PVDF layer reads on the claimed invention because the PMMA "top layer" is not required to be the outermost layer of the laminate. Rather, "top" is a relative term that gives the PMMA layer's position relative to the substrate layer, not relative to all other layers that "comprise" the laminated sheet. The examiner's reading is supported by page 27 of the specification which teaches additional layers may be present on the "outside of the top layer."

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

II.

The Rejection of Claim 30 under 35 USC 103(a) at paragraph 8, heading (a), page 13 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art"

Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

The Rejection of Claim 30 under 35 USC 103(a) at paragraph 8, heading (b), page 13 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

The Rejection of Claim 30 under 35 USC 103(a) at paragraph 8, heading (c), page 13 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

The Rejection of Claim 30 under 35 USC 103(a) at paragraph 8, heading (d), page 13 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

Applicant further argues that the examiner fails to establish a prima facie case of obviousness because Trabert does not disclose that the layer of polymethyl methacrylate which is co-extruded with an underlying structure shall be transparent. The examiner respectfully disagrees. Trabert teaches a "capstock" which is known in the art to be transparent. Furthermore, Trabert teaches the layer should have excellent optical properties (col 1, line 43), the underlying substrate must have "aesthetic properties (col 2, line 51), and the optical properties disclosed in table 2.

The Rejection of Claim 30 under 35 USC 103(a) at paragraph 8, heading (e), page 13 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

Applicant further argues Endoh fails to provide any reason for a skilled artisan to require a transparent PMMA layer to be present on top of a laminate sheet of film. It is believed applicant is attempting to emphasize their understanding of Endoh that a PVDF layer is required to be present on top of the taught PMMA layer. The examiner takes the position that a laminate comprising the additional PVDF layer reads on the

claimed invention. Specifically, the designation that the PMMA is a "top layer" does not require the PMMA to be the outermost layer of the laminate. Rather, "top" is a relative term that gives the PMMA layer's relative position in relation to the substrate layer, not in relation to all other layers that "comprise" the laminated sheet. This reading is further supported by page 27 of the specification which teaches additional layers may be present on the "outside of the top layer."

The Rejection of Claim 30 under 35 USC 103(a) at paragraph 8, heading (f), page 13 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

III.

The Rejection of Claim 26 under 35 USC 103(a) at paragraph 8, heading (a), page 14 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

The Rejection of Claim 26 under 35 USC 103(a) at paragraph 8, heading (b), page 14 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon

the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

The Rejection of Claim 26 under 35 USC 103(a) at paragraph 8, heading (c), page 14 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

The Rejection of Claim 26 under 35 USC 103(a) at paragraph 8, heading (d), page 14 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

Applicant further argues that the examiner fails to establish a prima facie case of obviousness because Trabert does not disclose that the layer of polymethyl methacrylate which is co-extruded with an underlying structure shall be transparent.

The examiner respectfully disagrees. Trabert teaches a "capstock" which is known in the art to be transparent. Furthermore, Trabert teaches the layer should have excellent optical properties (col 1, line 43), the underlying substrate must have "aesthetic properties (col 2, line 51), and the optical properties disclosed in table 2.

The Rejection of Claim 26 under 35 USC 103(a) at paragraph 8, heading (e), page 14 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

Applicant further argues Endoh fails to provide any reason for a skilled artisan to require a transparent PMMA layer to be present on top of a laminate sheet of film. It is believed applicant is attempting to emphasize their understanding of Endoh that a PVDF layer is required to be present on top of the taught PMMA layer. The examiner takes the position that a laminate comprising the additional PVDF layer reads on the claimed invention. Specifically, the designation that the PMMA is a "top layer" does not require the PMMA to be the outermost layer of the laminate. Rather, "top" is a relative term that gives the PMMA layer's relative position in relation to the substrate layer, not in relation to all other layers that "comprise" the laminated sheet. This reading is further supported by page 27 of the specification which teaches additional layers may be present on the "outside of the top layer."

The Rejection of Claim 26 under 35 USC 103(a) at paragraph 8, heading (f), page 14 of the Office Action

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

IV.

The rejection of Claim 43 under 35 U.S.C. 103(a) over Fischer and Zabrocki at paragraph 10, page 15 of the Office Action

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above “Regarding the art rejections” section.

The rejection of claim 43 under 35 U.S.C.103(a) over Fischer, McDonagh, Rosenau and Yutaka

Applicant argues Yutaka fails to teach or render obvious the addition of a polycarbonate having an average molecular weight in the range of 10,000 to 64,000g/mol. Said argument is noted but is considered moot since it is contingent upon the entry of the proposed amendment. The amendment has not been entered for the reasons noted above.

Applicant further argues that Yutaka does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with polycarbonate. The examiner respectfully disagrees. The addition of polycarbonate to any graft copolymer resembling component A is known to improve the impact resistance, stress cracking resistance and weatherability of the graft copolymer (see page 3, "Prior Art" Section of the Yutaka translation). Furthermore, one of ordinary skill in the art would expect polycarbonate to improve said properties of any graft copolymer that is similar to the AAS polymer taught in Yutaka due to the structural similarities between the graft copolymers.

With respect to McDonagh, Applicant argues that McDonagh fails to disclose a laminate comprising (1) a base layer of synthetic resin, and (2) a ***transparent*** crosslinked methacrylate/crosslinked styrene-acrylonitrile/uncrosslinked styrene acrylonitrile composition as a protective top layer. The examiner respectfully disagrees. McDonagh teaches the protective layer allows for use of darker colors in the substrate layer (col 3, lines 24+) which implies the protective layer is transparent.

The rejection of claim 43 under 35 U.S.C.103(a) over (a) Rosenau and (b) Zabrocki or McDonagh

Regarding applicant's polycarbonate arguments, Applicant's attention is directed to the examiner's comments in the above "Regarding the art rejections" section.

With respect to McDonagh, Applicant argues that McDonagh fails to disclose a laminate comprising (1) a base layer of synthetic resin, and (2) a ***transparent*** crosslinked methacrylate/crosslinked styrene-acrylonitrile/uncrosslinked styrene acrylonitrile composition as a protective top layer. The examiner respectfully disagrees. McDonagh teaches the protective layer allows for use of darker colors in the substrate layer (col 3, lines 24+) which implies the protective layer is transparent.

V.

Applicant further argues the claimed invention exhibits unexpected results with respect to the penetration energy when polycarbonate is present. In support of said argument, applicant points to Table 2 in the specification. Said data has been fully considered but is not persuasive. Specifically, the comparative example cannot be directly compared to the inventive examples because more than one variable changes. Each of the inventive examples comprised an intermediate layer whereas the comparative example did not. Furthermore, it is not clear that "component 1" in each example is the same or that the utilized "component 1" (as described at the top of page 33) agrees in scope with the claimed invention. Since the claim covers a broad range of graft copolymers and polycarbonate concentrations, it is not clear the inventive

examples agree in scope with the claimed invention. Furthermore, the result is not considered unexpected because Yutaka discloses that polycarbonate will improve the impact resistance and stress cracking of the graft copolymer. The skilled artisan would also expect an improvement in thermal stability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Kruer/
Primary Examiner, Art Unit 1794